REMARKS/ARGUMENTS

Paragraphs 2 and 3 of the Office Action of August 15, 2007 ("Office Action") raise certain formality objections to claim 1 based on pagination and formatting, and to claim 11 based on lack of antecedent basis for a particular limitation. Claim 1 is now amended and accordingly this objection has now been addressed. Claim 11 has been cancelled and accordingly this objection is moot.

Paragraphs 4 and 5 of the Office Action raise objections under 35 USC 112 alleging that claims 6 and 18 are indefinite for failing to point out and distinctly claim the subject matter which the applicant regards as the invention. Claims 6 and 18 are now amended and accordingly this objection has now been addressed. Specifically, in claim 6 the final feature commencing with the words "during which said device" has been deleted and replaced with "sending keep-alive signals based on said last-known good time period." which Applicant believes resolves the clarity issue. Additionally, claim 18 has been amended to remove reference to the set of instructions comprising the steps as requested in the Office Action.

Claims 1, 2, 3 and 5 were rejected under 35 USC 102(e) as being anticipated by US 6,761,636 ("Chung"). Claim 4 as rejected under 35 USC 103(a) as being unpatentable over Chung in view of US2002/0044771 ("Allred"). Claims 6, 7, 10-13, 15 and 18 were rejected under 35 USC 103(a) as being unpatentable over Chung in view of US 5,699,511 ("Porcaro"). Claim 14 was rejected under 35 USC 103(a) over Chung in view of Porcaro and Allred. Claims 8-9 and 16-17 were rejected under 35 USC 103(a) as being unpatentable over Chung in view of Porcara and US 2004/0205189 ("Sata").

Chung discloses a gaming system whereby a gaming server connects to a plurality of gaming clients via the Internet. Since the application is gaming, Chung emphasizes the "real-time" aspect of the system and many of the embodiments therein are directed to providing a real-time gaming experience for the users operating the gaming clients. The

Office Action identifies the handheld gaming device 16 in Figure 1 of Chung as satisfying the element of the electronic device in originally-filed claim 1. The Office Action also asserts that the personal computer PC 14 in Figure 1 satisfies the element of the "equipment for terminating" the network connection in originally-filed claim 1. Applicant respectfully disagrees with this assertion as discussed below. Finally, the Office Action asserts that Figure 10, and the text at column line 10 lines 44-64 satisfies the remaining functional elements in originally-filed claim 1, namely that the gaming device 16 is configured to determine a predefined time-out criteria that is established by the PC 14. Applicant also respectfully disagrees with this assertion, as discussed further below.

The cited-portion of Chung is reproduced below:

T2 Timer Thread

FIG. 10 is software flow chart for the T2 processing thread of the timer algorithm that determines the time-out of events. The timer thread is a low-resolution timer so that not much CPU resources are consumed in keeping track since only the resolution of seconds is needed. The time-out value that determines the time elapsed before a time-out occurs is set through the Java API.

Referring to FIG. 10, the major loop 1000 operates for every client or user of the system. The activity of every user is monitored and if a client or user is inactive for a preset period of time (different for every game), the client/user will be purged from the system as a time-out situation. Thus, for every client in the system, the question of decision box 1001 is asked to determine a time-out situation. If a time-out situation for a user is reached, the timer at box 1002 will purge the user through the system. For the case that the user pauses the game, since it is desirable to keep the session, the polling thread of the game will send keep-alive requests to the server at an interval smaller than the time-out value in order to keep the session from purging from the system.

The T2 thread from Chung as quoted above relates to a thread that is operational within the gaming server itself. (See Column 8, Table I, and lines 23-24). Thus, while

Paragraph 7 of the Office Action asserts that it is PC 14 in Chung which is terminating the connection, in fact it is the gaming server in Chung which is terminating the connection with the client. On this basis alone Chung fails to anticipate claim 1. Also, Column 10 lines 48-50 of Chung demonstrates that the time-out value is set in the gaming server by a Java API: "The time-out value that determines the time elapsed before a time-out occurs is set through the Java API.", there is no other teaching as to how the time-out value is established. While column 10, lines 59-64 indicate that the client will send keep-alive requests to the gaming server at "an interval smaller than the time-out value in order the keep the session from purging from the system", there is no teaching or suggestion whatsoever as to how the client determines the time-out value. Amended claim 1 clarifies how the client determines the time-out value and therefore further distinguishes over Chung.

Porcaro is cited in conjunction with Chung in the Office Action as part of an obviousness rejection in relation to claims 6, 7, 10-13, 15 and 18. Porcaro discloses a file system that minimizes the length of time a client system waits before declaring a data communication link disconnected. A connection between a personal digital assistant and a server via a local area network is contemplated (See Figure 1, where client workstations 106, 108 and 110 connect to a server 104 via LAN 102; See also column 2, lines 3-5 which implies that the client workstations can include a personal digital assistant ("PDA")). However, there is no explicit reference in Porcaro to the NAT or any other equipment between the client and the server that causes the network connection to actually drop. Figure 4 and column 5, lines 27-41 of Porcaro make reference to time-delays within the network, but there is no contemplation, explicit or implicit, that the network itself entirely drops the actual connection between the client and the server. In general Porcaro is still directed to the problem of the server dropping the connection with the client after exceeding a given time-out period. See column 2, lines 37-42 of Porcaro which states "The technical problem exists to find a time-out strategy that minimizes the time needed to detect actual disconnection while properly supporting intermittent disconnections due to temporary communications link interruptions." In Porcaro it is the server that terminates the connection if the connection remains idle

according to the predefined time-out criteria. As shown in Figure 4, while Porcaro contemplates that the network connection can introduce delays or interruptions in communications from the client to the server. Note that t_1 and t_3 in Figure 4, and as discussed at column 5 lines 36 of Porcaro all relate to *network transmission delays*, they do not and cannot relate to connection terminations. Such delays may ultimately cause the server to determine a time period maintained by the *server* has been exceeded. However, Porcaro does not contemplate that that the network connection between the client and the server includes equipment (such as a NAT) that would itself terminate the connection if a time period has been exceeded elapsed. Thus, like Chung, Porcaro also cannot satisfy the element of a network connection that includes equipment for terminating the connection if the connection remains idle according a predefined time-out criteria.

Furthermore, while Figure 5 and the accompanying text of Porcaro describes a method for varying a time-out period, it is the server that actually makes use of the variable time-out period. But it is important to note that in the claims as pending it is not the time-out period that is varied – it is the period during which keep-alive signals are sent which is varied. The time-out period in the present claims is fixed by the NAT. Figure 5 of Porcaro describes a method for determining at the client device an ideal time-out period as such a period may arise in accordance with Figure 4 of Porcaro, but that determined ideal time-out period is ultimately sent to the server. See Column 6, lines 14-17 of Porcaro which states: "If a connection exists, the file System request with *__time-out value is sent to the server.__*" Once the server is in possession of the time-out value, the server can then adjust the time-out period accordingly to thereby accommodate the latencies contemplated in Figure 4 of Porcaro.

No keep-alive signals are actually used in Porcaro. The Office Action at paragraph 10, page 7, suggests that a keep-alive signal is used in Porcaro at columns 6, lines 8-22. Respectfully, there is no reference whatsoever to keep-alive signals in Porcaro in the cited-portion or anywhere in Porcaro. Put simply, Porcaro is directed to having a client determine the sum of various latencies between a file system request and a file system

response. The sum of those latencies is provided to the server so that the server can vary its own time-out period in order to account for the total of the latencies. The present claims therefore distinguish over Porcaro for at least the fact that in the present claims, it is the *equipment* between the server and the client that has the time-out period, and also because the client simply determines the time-out period and sends keep-alive signals within that time-out period – the present claims do not contemplate actually varying the time-out period. The present claims contemplate varying the delivery of a keep-alive signal depending on the time-out period. The present claims do not contemplate having the electronic device send the determined time-out period to the equipment that lies between the server and the client.

Allred is cited in relation to claim 4 and subsequent claim rejections for the fact that Allred discloses a network address translation ("NAT") router. Likewise, Sata is cited in relation to claims 8-9, 16-17 for the fact that Sata discloses a battery operated client. Applicant respectfully submits that the rejections under Allred and Sata are moot given that these references are being cited against dependent claims in combinations with Chung and Porcaro and the objections based on Chung and Porcaro are being overcome.

CONCLUSION

Applicants believe that it has fully responded to the Examiner's concerns and that the claims are now in condition for immediate allowance. Applicants respectfully request reconsideration and immediate allowance of the claims.

Applicants hereby request that any fee which may be required for the papers being filed with this letter be charged to, or any overpayment be credited to Deposit Account No. 50-3750.

In the event that any PTO official wishes to discuss this application on the telephone, the call should be directed to Andrew Currier, Registration Number 45,400, at 416.920.8170 x 109.

Respectfully submitted,

By_____

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